

What is claimed is:

1. A material spreader for spreading a quantity of material comprising:

a material spreader box having a bottom wall and opposite side walls forming a storage chamber for storing the quantity of material;

5 the bottom wall having opposite side edges from which the opposite side walls extend upwardly;

a discharge opening in the material spreader box adjacent the rear end of the bottom wall;

a conveyor belt superimposed over the bottom wall and positioned for supporting the quantity of material contained within the storage chamber, the conveyor belt having

10 a width and that causes the conveyor belt to substantially completely cover the width of the bottom wall;

drive mechanism connected to the conveyor belt for moving the conveyor belt relative to the bottom wall in a rearward direction toward the rear wall of the spreader box,

whereby the conveyor belt will carry the quantity of material within the storage

15 chamber in a rearward direction and will discharge the material through the discharge opening at the rear end of the bottom wall;

a beater assembly mounted to the rear of the box for engaging and spreading the material exiting from the discharge opening of the rear wall.

20 2. The material spreader according to claim 1 wherein the drive mechanism comprises a chain and sprocket assembly connected to the conveyor belt.

3. The material spreader according to claim 2 wherein the chain and sprocket assembly is located outside the storage chamber and is free from contact with the quantity of material stored within the storage chamber.

5 4. The material spreader according to claim 1 wherein the beater assembly comprises a plurality of beater bars mounted to the spreader box for rotation about a plurality of upstanding axes.

5. The material spreader according to claim 1 wherein the beater assembly comprises a
10 plurality of beater bars mounted to the spreader box for rotation about a plurality of horizontal axes.

6. The material spreader according to claim 2 and further comprising a first roller and a second roller spaced apart from one another and mounted for rotation about first and
15 second roller axes, respectively, the conveyor belt being continuous and being trained around at least one of the first and second rollers.

7. The material spreader according to claim 6 wherein the chain and sprocket assembly comprises a sprocket connected to at least one of the first and second rollers and
20 a chain engaging the sprocket for causing rotation of the one of the first and second rollers.

8. The material spreader according to claim 7 wherein the chain and the sprocket are located outside the material storage chamber.

9. A method for spreading a quantity of material comprising:
taking a spreader box having opposite sidewalls and a rear discharge opening therein, and a
bottom wall forming a material chamber;
mounting a conveyor belt within the material chamber in close covering relation over the
5 bottom wall and substantially covering the width of the bottom wall;
inserting the quantity of material within the material chamber so that the quantity of
material rests upon the conveyor belt;
moving the conveyor belt toward the discharge opening whereby the quantity of material
will be moved toward and discharged from the material chamber through the
10 discharge opening;
engaging and spreading the material being discharged from the discharge opening.

10. The method of claim 9 wherein the step of moving the conveyor belt comprises
using a movable chain and sprocket assembly connected to the conveyor belt to move the
15 conveyor belt toward the discharge opening.

11. The method of claim 10 and further comprising maintaining the chain and sprocket
assembly outside the material chamber so that the chain and sprocket assembly does not
engage the quantity of material.

12. The method of claim 9 and further comprising training the conveyor belt around a
first roller and a second roller mounted to the box for rotation about first and second
horizontal axes, respectively.

13. The method of claim 12 and further comprising rotating at least one of the first and second rollers to cause movement of the conveyor belt toward the discharge opening of the rear wall.

5 14. The method of claim 13 and further comprising using a chain trained around a sprocket connected to the at least one roller to rotate the at least one roller.

15. A method for spreading a quantity of material comprising:
taking a spreader box having a pair of opposite side walls and a bottom wall forming a
10 material chamber, the bottom wall having front and rear ends, the spreader box
having a discharge opening located adjacent the rear end of the bottom wall;
training a continuous belt/chain assembly around a chain sprocket and a belt roller, the
belt/chain assembly comprising a belt located within the material chamber in close
covering relation over the bottom wall and substantially covering the width of the
15 bottom wall, and a chain connected to the belt;
inserting the quantity of material within the material chamber so that the quantity of
material rests upon the conveyor belt;
moving the conveyor belt toward the discharge opening whereby the quantity of material
will be moved toward and discharged from the material chamber through the
20 discharge opening;
engaging and spreading the material being discharged from the discharge opening; and
maintaining the chain free from contact with the material within the material chamber at all
times.